

The opinion in support of the decision being entered  
today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KENNETH O. HAYES

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Appeal 2007-1584  
Application 10/689,337  
Technology Center 3700

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Decided: September 13, 2007

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Before DONALD E. ADAMS, NANCY J. LINCK, and  
RICHARD M. LEBOVITZ, *Administrative Patent Judges*.  
LINCK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a 35 U.S.C. § 134 appeal in the above-referenced case.<sup>1</sup>  
We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

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<sup>1</sup> The application was filed October 20, 2003.

## STATEMENT OF THE CASE

The field of the invention is “hand tools and, in particular, . . . weed extraction tools” (Specification (“Spec.”) 1).

Claims 1, 4-7, 10-16, and 19 are on appeal.<sup>2</sup> The claimed subject matter is reflected in representative claim 1 (emphasis added to the disputed language):

1. (Original) A tool, comprising:  
a body member having a longitudinal axis;  
a blade fixed to said body;  
an arcuate support spaced from said longitudinal axis and  
having a length; and  
*a web substantially spanning said arcuate support and said  
body along said length of said arcuate support.*

## DISCUSSION

*Claims 1, 4, 5, 7, 11-14, and 16*

The Examiner has rejected claims 1, 4, 5, 7, 11-14, and 16 under 35 U.S.C. § 103(a) over DeArmond, U.S. Patent 5,609,325 (Mar. 11, 1997) and Weisgerber, U.S. Patent 4,368,874 (Jun. 18, 1983). DeArmond discloses all the limitations of claim 1, except the web (see FIG. 1); and Weisgerber discloses a web (FIG. 1 (brace 48)).

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<sup>2</sup> Claims 2, 3, 8, 9, 17, and 18 are “objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims” (Office Action at 4 (mailed 12/05/2005); Interview Summary Record at 2 (mailed January 20, 2006)).

The patentability of Appellant's claims turns on the scope and meaning of the claim phrase "a web substantially spanning said arcuate support and said body along said length of said arcuate support." As the Examiner found and Appellant does not dispute, the remaining limitations of claim 1 are met by DeArmond's teachings (Answer 3).

The Examiner interprets the disputed limitation in two ways (Answer 3-5). We adopt his second, alternative, interpretation (*id.* at 4-5). Thus, the web must "substantially span" the length of the arcuate support. This interpretation is consistent with teachings in the Specification (*see, e.g.*, Appellant's Fig. 1). As the Examiner found, given this interpretation, the only difference between the web 48 taught by Weisgerber and that claimed (50 in FIG. 1) is size (Answer 4). As the Examiner further found: "Since the web (which is a brace or strut) is for strength, one skilled in the art would have been motivated to increase the distance of the web along the body member to therefore increase the strength of the device" (*id.*).

With regard to the Examiner's other findings and responses, we adopt them here and conclude they are sufficient to support his *prima facie* case of unpatentability and thus affirm his § 102(e) rejection for the reasons given by the Examiner.

Appellant objects to the Examiner's reliance on the level of skill in the art to combine DeArmond and Weisgerber without providing any supporting affidavits, quoting *In re Jones*, 958 F.2d 347, 351 (Br. 8-9). According to Appellant, such evidence of motivation to combine is required in the absence of a teaching or suggestion in the references themselves (Br. 9).

The Supreme Court's reasoning in *KSR Int'l v. Teleflex Inc.*, 127 S. Ct. 1727 (2007) supports the Examiner's rationale for combining DeArmond

and Weisgerber. Here, the combination involved “the mere application of a known technique” (Weisgerber’s teaching of strengthening a support with a web) “to a piece of prior art ready for the improvement” (DeArmond’s weed extractor with a support lacking a web to strengthen the tool. *KSR Int’l*, 127 S. Ct. at 1740. Significantly, according to the Court:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida* and *Anderson’s-Black Rock* are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

*Id.* In this case, the skilled artisan would have recognized the value of adding a web or brace to DeArmond’s weed pulling device. And adding such a web or brace would have improved DeArmond’s device in the same way it improved Weisgerber’s. Such a simple addition would not have been beyond the level of skill in the art and thus would have been obvious, as the Examiner correctly determined. Appellant “should not be granted a patent for merely adding a reinforcing strut to an existing tool such as the DeArmond tool” (Answer 8). Thus, we affirm the Examiner’s rejection of claims 1, 4, 5, 7, 11-14, and 16 under 35 U.S.C. § 103(a).

#### *Claims 6 and 15*

In addition to DeArmond and Weisgerber, the Examiner relies upon Gottlieb, U.S. Patent 4,472,986 (Sep. 25, 1984) to support his § 103(a)

rejection of claims 6 and 15. These two claims additionally comprise “a handle” with a “loop hanger.” Gottlieb discloses a tool with a handle and “hanger apertures” at the extreme end of the handle (Gottlieb, col. 3, ll. 50-53).

Appellant does not argue this limitation is missing from the prior art teachings but rather relies upon his prior arguments relating to the combination of DeArmond and Weisgerber. Thus, we affirm the Examiner’s rejection of claims 6 and 15 for the reasons previously given (*see supra* pp. 2-4).

*Claims 10 and 19*

In addition to DeArmond and Weisgerber, the Examiner relies upon Pace, U.S. Patent 6,848,341 B2 (Feb. 1, 2005) to support his § 103(a) rejection of claims 10 and 19. Claims 10 and 19 additionally require the tool to be “integrally formed from a composite material.” According to the Examiner, Pace discloses a tool made from 4140 steel, a “composite material” (Answer 8). “Composite” is not defined in the Specification and thus is given its broadest reasonable interpretation. *See In re Graves*, 69 F.3d 1147, 1152 (Fed.Cir.1995); *In re Etter*, 756 F.2d 852, 858 (Fed. Cir. 1985) (en banc).

We define “composite” to mean: “A mixture or mechanical combination on a macro scale or two or more materials that are solid in the finished state, are mutually insoluble, and differ in chemical nature.” Hawley’s Condensed Chemical Dictionary 302 (11<sup>th</sup> ed. 1987). This definition is sufficiently broad to include at least some alloys.

Appellant has not challenged the Examiner’s finding regarding 4140 steel. Thus, we affirm the Examiner’s rejection of claims 10 and 19.

CONCLUSION

In summary, we affirm the rejection of claims 1, 4-7, 10-16, and 19 under 35 U.S.C. § 103(a) based on the Examiner's reasoning and our analysis, as explained above.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

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